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DERWENT-WEEK: 200512

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TITLE: Advanced wastewater treatment method using  
intermittent aeration reactor packed with granular media

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PATENT-FAMILY:

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APPLICATION-DATA:

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INT-CL (IPC): C02F003/08, C02F003/30

ABSTRACTED-PUB-NO: KR2004084200A

BASIC-ABSTRACT:

NOVELTY - To reduce wastewater retention time in reactors by introducing granular media onto which microorganisms related to nitrification are adhered into intermittent aeration reactors.

DETAILED DESCRIPTION - Raw wastewater is introduced into an anaerobic tank(12) and a first intermittent aeration tank(13) via a distribution tank(11). Microorganisms release phosphorus by using organics contained in wastewater in the anaerobic tank, while luxury uptake of phosphorus is observed both in the

first intermittent aeration tank and in a second intermittent aeration tank(14) after phosphorus is released into wastewater from microorganisms in the anaerobic tank. Wastewater retention time in the anaerobic tank, the first intermittent aeration tank and the second intermittent aeration tank is 1 to 1.5 hrs, 5 to 6 hrs and 5 to 6 hrs, respectively. Also intermittent aeration is performed in such a way that aeration and idle is alternated at a time interval of 0.5 to 1 hr. Denitrification of wastewater is carried out in the first intermittent aeration tank and the second intermittent aeration tank by microorganisms adhered on granular media. Treated water after denitrification is discharged to the outside via a conditioning tank(15) and a final clarifier(16).

USE - Waste water treatment.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: ADVANCE TREAT METHOD INTERMITTENT AERATE REACTOR PACK  
GRANULE  
MEDIUM

DERWENT-CLASS: D15

CPI-CODES: D04-A01J; D04-A01K2;

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